IN THE CLAIMS

Please amend the claims as follows:

Claims 1-17 (Canceled).

Claim 18 (Original): An image processing apparatus, comprising:

a code stream storing part that stores a hierarchically encoded compressed code obtained by dividing an image into a plurality of tiles and performing discrete wavelet transform on pixel values of the image tile by tile;

a decoding quantity specifying part that specifies decoding quantity of the compressed code, the decoding quantity being a portion of the compressed code which portion is to be decoded;

an image decoding part that decodes the compressed code by the decoding quantity specified by said decoding quantity specifying part; and

an image display part that causes a display unit to display the image based on the compressed code decoded by said image decoding part,

wherein said image decoding part comprises a tile boundary smoothing part that performs smoothing of tile boundary distortion on the image after the decoding by application of a low-pass filter, the tile boundary smoothing part controlling a degree of smoothing of the low-pass filter according to a ratio of the decoding quantity to the entire quantity of the compressed code.

Claim 19 (Original): The image processing apparatus as claimed in claim 18, wherein said tile boundary smoothing part increases the degree of smoothing of the low-pass filter as the ratio of the decoding quantity to the entire quantity of the compressed code decreases.

Claim 20 (Original): The image processing apparatus as claimed in claim 19, wherein a weighting factor m of a center of the low-pass filter is calculated based on m = 32*R, where R is the ratio of the decoding quantity to the entire quantity of the compressed code.

Claim 21 (Original): The image processing apparatus as claimed in claim 18, wherein said tile boundary smoothing part is prevented from performing the smoothing of tile boundary distortion when the ratio of the decoding quantity to the entire quantity of the compressed code exceeds a predetermined threshold.

Claim 22 (Original): The image processing apparatus as claimed in claim 18, further comprising a tile boundary specifying part that specifies a tile boundary so that said tile boundary smoothing part performs the smoothing of tile boundary distortion only on a peripheral pixel of the specified tile boundary.

Claim 23 (Original): The image processing apparatus as claimed in claim 22, wherein the tile boundary specified by said tile boundary specifying part exists within a region of interest (ROI).

Claim 24 (Original): The image processing apparatus as claimed in claim 18, wherein said tile boundary smoothing part performs the smoothing of tile boundary distortion on the image after the decoding by applying the low-pass filter to peripheral pixels of a tile boundary in the image.

Claim 25 (Original): The image processing apparatus as claimed in claim 18, wherein:

the image is a moving image comprising a plurality of frames successively decodable by said image decoding part;

said tile boundary smoothing part performs the smoothing of tile boundary distortion on each of the frames after the decoding; and

said image decoding part further comprises:

a mode selection part that makes selectable one of a first mode for giving priority to image quality and a second mode for giving priority to processing speed in the smoothing of tile boundary distortion by said tile boundary smoothing part; and

a tile boundary smoothing switching part that switches a processing mode between the first mode and the second mode based on the selection by said mode selection part in the smoothing of tile boundary distortion on the frames after the decoding by said tile boundary smoothing part.

Claim 26 (Original): The image processing apparatus as claimed in claim 25, wherein:

said mode selection part makes one of the first and second modes selectable for each of the frames based on a type of the frame; and

said tile boundary smoothing switching part switches the processing mode to the first mode for a start frame and a final frame of the moving image, and to the second mode for the other frames of the moving image.

Claim 27 (Original): The image processing apparatus as claimed in claim 26, wherein said tile boundary smoothing switching part further switches the processing mode to the second mode for a suspended frame of the moving image at suspension of reproduction thereof.

Claim 28 (Original): The image processing apparatus as claimed in claim 25, wherein:

said mode selection part makes one of the first and second modes selectable for each of the frames based on code quantity of the frame by which code quantity the frame is to be decoded; and

said tile boundary smoothing switching part switches the processing mode to the first mode if the code quantity of the frame is less than or equal to a predetermined threshold, and to the second mode if the code quantity of the frame exceeds the predetermined threshold.

Claim 29 (Original): The image processing apparatus as claimed in claim 25, wherein:

said mode selection part makes one of the first and second modes selectable based on a frame rate in the smoothing of tile boundary distortion by said tile boundary smoothing part; and

said tile boundary smoothing switching part switches the processing mode to the first mode if the frame rate is lower than or equal to a predetermined threshold, and to the second mode if the frame rate exceeds the predetermined threshold.

Claim 30 (Original): The image processing apparatus as claimed in claim 25, wherein said tile boundary smoothing part applies the low-pass filter to peripheral pixels of a tile boundary in each of the frames after the decoding.

Claim 31 (Original): The image processing apparatus as claimed in claim 30, wherein the low-pass filter applied by said tile boundary smoothing part is uniform for the peripheral

pixels in the second mode, and is adaptively controlled in the degree of smoothing according to the peripheral pixels in the first mode.

Claim 32 (Original): The image processing apparatus as claimed in claim 31, wherein said tile boundary smoothing part adaptively controls the low-pass filter in the degree of smoothing according to a pixel-boundary distance and an edge amount of each of the peripheral pixels.

Claim 33 (Original): The image processing apparatus as claimed in claim 25, wherein said image decoding part further comprises a tile boundary specifying part that specifies a tile boundary so that said tile boundary smoothing part performs the smoothing of tile boundary distortion only on a peripheral pixel of the specified tile boundary.

Claim 34 (Original): The image processing apparatus as claimed in claim 33, wherein the tile boundary specified by said tile boundary specifying part exists within an ROI.

Claim 35 (Original): The image processing apparatus as claimed in claim 18, wherein:

said tile boundary smoothing part applies the low-pass filter to peripheral pixels of a tile boundary; and

weighting factors of the low-pass filter are asymmetric with respect a direction of the tile boundary.

Claim 36 (Original): The image processing apparatus as claimed in claim 35, wherein a degree of asymmetry of the weighting factors of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 37 (Original): The image processing apparatus as claimed in claim 35, wherein the weighting factors of the low-pass filter are asymmetric in a case where taps of the low-pass filter cross the tile boundary.

Claim 38 (Original): The image processing apparatus as claimed in claim 35, wherein the weighting factors of the low-pass filter are asymmetric in a case where mean pixel value error generated in one of the peripheral pixels which one is a target of the low-pass filter is greater than mean pixel value errors of two pixels adjacent to the one of the peripheral pixels.

Claim 39 (Original): The image processing apparatus as claimed in claim 35, wherein a degree of asymmetry of the weighting factors of the low-pass filter differs among components of the image.

Claim 40 (Original): The image processing apparatus as claimed in claim 35, wherein a degree of asymmetry of the weighting factors of the low-pass filter differs according to a compression rate of the compressed image.

Claim 41 (Original): The image processing apparatus as claimed in claim 35, wherein a degree of asymmetry of the weighting factors of the low-pass filter depends on a type of a wavelet filter employed in the compression and decompression of the image.

Claim 42 (Original): The image processing apparatus as claimed in claim 35, wherein a frequency characteristic of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 43 (Original): The image processing apparatus as claimed in claim 42, wherein the frequency characteristic of the low-pass filter further depends on an edge degree of a periphery of the tile boundary.

Claim 44 (Original): The image processing apparatus as claimed in claim 35, wherein a frequency characteristic of the low-pass filter differs among components of the image.

Claim 45 (Original): The image processing apparatus as claimed in claim 35, wherein a frequency characteristic of the low-pass filter depends on a compression rate of the compressed image.

Claim 46 (Original): The image processing apparatus as claimed in claim 35, wherein a frequency characteristic of the low-pass filter differs according to a type of a wavelet filter employed in the compression and decompression of the image.

Claim 47 (Original): The image processing apparatus as claimed in claim 35, wherein a frequency characteristic of the low-pass filter depends on an edge degree of a periphery of the tile boundary.

Claim 48 (Original): The image processing apparatus as claimed in claim 35, wherein said tile boundary smoothing part applies the low-pass filter to the peripheral pixels of the tile boundary after inverse color conversion is performed on the decoded image.

Claim 49 (Original): The image processing apparatus as claimed in claim 35, wherein said tile boundary smoothing part applies the low-pass filter to the peripheral pixels of the tile boundary before inverse color conversion is performed on the decoded image.

Claim 50 (Original): The image processing apparatus as claimed in claim 18, wherein:

said tile boundary smoothing part applies the low-pass filter to peripheral pixels of a tile boundary; and

sizes of mean pixel value errors of the peripheral pixels are reflected in weighting factors of the low-pass filter.

Claim 51 (Original): The image processing apparatus as claimed in claim 50, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 52 (Original): The image processing apparatus as claimed in claim 50, wherein the sizes of the mean pixel value errors are reflected in the weighting factors of the low-pass filter in a case where taps of the low-pass filter cross the tile boundary.

Claim 53 (Original): The image processing apparatus as claimed in claim 50, wherein the sizes of the mean pixel value errors are reflected in the weighting factors of the low-pass filter in a case where the mean pixel value error generated in one of the peripheral pixels which one is a target of the low-pass filter is greater than mean pixel value errors of two pixels adjacent to the one of the peripheral pixels.

Claim 54 (Original): The image processing apparatus as claimed in claim 50, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter differs among components of the image.

Claim 55 (Original): The image processing apparatus as claimed in claim 50, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter differs according to a compression rate of the compressed image.

Claim 56 (Original): The image processing apparatus as claimed in claim 50, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter depends on a type of a wavelet filter employed in the compression and decompression of the image.

Claim 57 (Original): The image processing apparatus as claimed in claim 50, wherein a frequency characteristic of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 58 (Original): The image processing apparatus as claimed in claim 57, wherein the frequency characteristic of the low-pass filter further depends on an edge degree of a periphery of the tile boundary.

Claim 59 (Original): The image processing apparatus as claimed in claim 50, wherein a frequency characteristic of the low-pass filter differs among components of the image.

Claim 60 (Original): The image processing apparatus as claimed in claim 50, wherein a frequency characteristic of the low-pass filter depends on a compression rate of the compressed image.

Claim 61 (Original): The image processing apparatus as claimed in claim 50, wherein a frequency characteristic of the low-pass filter differs according to a type of a wavelet filter employed in the compression and decompression of the image.

Claim 62 (Original): The image processing apparatus as claimed in claim 50, wherein a frequency characteristic of the low-pass filter depends on an edge degree of a periphery of the tile boundary.

Claim 63 (Original): The image processing apparatus as claimed in claim 50, wherein said tile boundary smoothing part applies the low-pass filter to the peripheral pixels of the tile boundary after inverse color conversion is performed on the decoded image.

Claim 64 (Original): The image processing apparatus as claimed in claim 50, wherein said tile boundary smoothing part applies the low-pass filter to the peripheral pixels of the tile boundary before inverse color conversion is performed on the decoded image.

Claims 65-74 (Canceled).

Claim 75 (Original): A method of decoding a hierarchically encoded compressed code obtained by dividing an image into a plurality of tiles and performing discrete wavelet transform on pixel values of the image tile by tile, the method comprising the step of:

(a) performing smoothing of tile boundary distortion on the image after the decoding by application of a low-pass filter,

wherein said step (a) controls a degree of smoothing of the low-pass filter according to a ratio of decoding quantity to the entire quantity of the compressed code, the decoding quantity being a portion of the compressed code which portion is to be decoded.

Claim 76 (Original): The method as claimed in claim 75, wherein said step (a) increases the degree of smoothing of the low-pass filter as the ratio of the decoding quantity to the entire quantity of the compressed code decreases.

Claim 77 (Original): The method as claimed in claim 76, wherein a weighting factor m of a center of the low-pass filter is calculated based on $m = 32*R$, where R is the ratio of the decoding quantity to the entire quantity of the compressed code.

Claim 78 (Original): The method as claimed in claim 75, wherein said step (a) is prevented from performing the smoothing of tile boundary distortion when the ratio of the

decoding quantity to the entire quantity of the compressed code exceeds a predetermined threshold.

Claim 79 (Original): The method as claimed in claim 75, further comprising the step of (b) specifying a tile boundary so that said step (a) performs the smoothing of tile boundary distortion only on a peripheral pixel of the specified tile boundary.

Claim 80 (Original): The method as claimed in claim 79, wherein the tile boundary specified by said step (b) exists within a region of interest (ROI).

Claim 81 (Original): The method as claimed in claim 75, wherein said step (a) performs the smoothing of tile boundary distortion on the image after the decoding by applying the low-pass filter to peripheral pixels of a tile boundary in the image.

Claim 82 (Original): The method as claimed in claim 75, wherein the image is a moving image comprising a plurality of frames successively decodable by the method, and said step (a) performs the smoothing of tile boundary distortion on each of the frames after the decoding,

the method further comprising the step of (b) making selectable one of a first mode for giving priority to image quality and a second mode for giving priority to processing speed in the smoothing of tile boundary distortion by said step (a) so that a processing mode is switched between the first mode and the second mode based on the selection by said step (b) in the smoothing of tile boundary distortion on the frames after the decoding by said step (a).

Claim 83 (Original): The method as claimed in claim 82, wherein:

said step (b) makes one of the first and second modes selectable for each of the frames based on a type of the frame; and

the processing mode is switched to the first mode for a start frame and a final frame of the moving image, and to the second mode for the other frames of the moving image.

Claim 84 (Original): The method as claimed in claim 83, wherein the processing mode is also switched to the second mode for a suspended frame of the moving image at suspension of reproduction thereof.

Claim 85 (Original): The method as claimed in claim 82, wherein:

said step (b) makes one of the first and second modes selectable for each of the frames based on code quantity of the frame by which code quantity the frame is to be decoded; and

the processing mode is switched to the first mode if the code quantity of the frame is less than or equal to a predetermined threshold, and to the second mode if the code quantity of the frame exceeds the predetermined threshold.

Claim 86 (Original): The method as claimed in claim 82, wherein:

said step (b) makes one of the first and second modes selectable based on a frame rate in the smoothing of tile boundary distortion by said step (a); and

the processing mode is switched to the first mode if the frame rate is lower than or equal to a predetermined threshold, and to the second mode if the frame rate exceeds the predetermined threshold.

Claim 87 (Original): The method as claimed in claim 82, wherein said step (a) applies the low-pass filter to peripheral pixels of a tile boundary in each of the frames after the decoding.

Claim 88 (Original): The method as claimed in claim 87, wherein the low-pass filter applied by said step (a) is uniform for the peripheral pixels in the second mode, and is adaptively controlled in the degree of smoothing according to the peripheral pixels in the first mode.

Claim 89 (Original): The method as claimed in claim 88, wherein said step (a) adaptively controls the low-pass filter in the degree of smoothing according to a pixel-boundary distance and an edge amount of each of the peripheral pixels.

Claim 90 (Original): The method as claimed in claim 82, further comprising the step of (c) specifying a tile boundary so that said step (b) performs the smoothing of tile boundary distortion only on a peripheral pixel of the specified tile boundary.

Claim 91 (Original): The method as claimed in claim 90, wherein the tile boundary specified by said step (c) exists within an ROI.

Claim 92 (Original): The method as claimed in claim 75, wherein:

said step (a) applies the low-pass filter to peripheral pixels of a tile boundary; and

weighting factors of the low-pass filter are asymmetric with respect a direction of the tile boundary.

Claim 93 (Original): The method as claimed in claim 92, wherein a degree of asymmetry of the weighting factors of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 94 (Original): The method as claimed in claim 92, wherein the weighting factors of the low-pass filter are asymmetric in a case where taps of the low-pass filter cross the tile boundary.

Claim 95 (Original): The method as claimed in claim 92, wherein the weighting factors of the low-pass filter are asymmetric in a case where mean pixel value error generated in one of the peripheral pixels which one is a target of the low-pass filter is greater than mean pixel value errors of two pixels adjacent to the one of the peripheral pixels.

Claim 96 (Original): The method as claimed in claim 92, wherein a degree of asymmetry of the weighting factors of the low-pass filter differs among components of the image.

Claim 97 (Original): The method as claimed in claim 92, wherein a degree of asymmetry of the weighting factors of the low-pass filter differs according to a compression rate of the compressed image.

Claim 98 (Original): The method as claimed in claim 92, wherein a degree of asymmetry of the weighting factors of the low-pass filter depends on a type of a wavelet filter employed in the compression and decompression of the image.

Claim 99 (Original): The method as claimed in claim 92, wherein a frequency characteristic of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 100 (Original): The method as claimed in claim 99, wherein the frequency characteristic of the low-pass filter further depends on an edge degree of a periphery of the tile boundary.

Claim 101 (Original): The method as claimed in claim 92, wherein a frequency characteristic of the low-pass filter differs among components of the image.

Claim 102 (Original): The method as claimed in claim 92, wherein a frequency characteristic of the low-pass filter depends on a compression rate of the compressed image.

Claim 103 (Original): The method as claimed in claim 92, wherein a frequency characteristic of the low-pass filter differs according to a type of a wavelet filter employed in the compression and decompression of the image.

Claim 104 (Original): The method as claimed in claim 92, wherein a frequency characteristic of the low-pass filter depends on an edge degree of a periphery of the tile boundary.

Claim 105 (Original): The method as claimed in claim 92, wherein said step (a) applies the low-pass filter to the peripheral pixels of the tile boundary after inverse color conversion is performed on the decoded image.

Claim 106 (Original): The method as claimed in claim 92, wherein said step (a) applies the low-pass filter to the peripheral pixels of the tile boundary before inverse color conversion is performed on the decoded image.

Claim 107 (Original): The method as claimed in claim 75, wherein:

said step (a) applies the low-pass filter to peripheral pixels of a tile boundary; and

sizes of mean pixel value errors of the peripheral pixels are reflected in weighting factors of the low-pass filter.

Claim 108 (Original): The method as claimed in claim 107, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 109 (Original): The method as claimed in claim 107, wherein the sizes of the mean pixel value errors are reflected in the weighting factors of the low-pass filter in a case where taps of the low-pass filter cross the tile boundary.

Claim 110 (Original): The method as claimed in claim 107, wherein the sizes of the mean pixel value errors are reflected in the weighting factors of the low-pass filter in a case where the mean pixel value error generated in one of the peripheral pixels which one is a

target of the low-pass filter is greater than mean pixel value errors of two pixels adjacent to the one of the peripheral pixels.

Claim 111 (Original): The method as claimed in claim 107, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter differs among components of the image.

Claim 112 (Original): The method as claimed in claim 107, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter differs according to a compression rate of the compressed image.

Claim 113 (Original): The method as claimed in claim 107, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter depends on a type of a wavelet filter employed in the compression and decompression of the image.

Claim 114 (Original): The method as claimed in claim 107, wherein a frequency characteristic of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 115 (Original): The method as claimed in claim 114, wherein the frequency characteristic of the low-pass filter further depends on an edge degree of a periphery of the tile boundary.

Claim 116 (Original): The method as claimed in claim 107, wherein a frequency characteristic of the low-pass filter differs among components of the image.

Claim 117 (Original): The method as claimed in claim 107, wherein a frequency characteristic of the low-pass filter depends on a compression rate of the compressed image.

Claim 118 (Original): The method as claimed in claim 107, wherein a frequency characteristic of the low-pass filter differs according to a type of a wavelet filter employed in the compression and decompression of the image.

Claim 119 (Original): The method as claimed in claim 107, wherein a frequency characteristic of the low-pass filter depends on an edge degree of a periphery of the tile boundary.

Claim 120 (Original): The method as claimed in claim 107, wherein said step (a) applies the low-pass filter to the peripheral pixels of the tile boundary after inverse color conversion is performed on the decoded image.

Claim 121 (Original): The method as claimed in claim 107, wherein said step (a) applies the low-pass filter to the peripheral pixels of the tile boundary before inverse color conversion is performed on the decoded image.

Claim 122 (Original): A computer-readable recording medium storing a program for causing a computer to execute a method of decoding a hierarchically encoded compressed

code obtained by dividing an image into a plurality of tiles and performing discrete wavelet transform on pixel values of the image tile by tile, the method comprising the step of:

(a) performing smoothing of tile boundary distortion on the image after the decoding by application of a low-pass filter,

wherein said step (a) controls a degree of smoothing of the low-pass filter according to a ratio of decoding quantity to the entire quantity of the compressed code, the decoding quantity being a portion of the compressed code which portion is to be decoded.

Claim 123 (Original): The computer-readable recording medium as claimed in claim 122, wherein said step (a) increases the degree of smoothing of the low-pass filter as the ratio of the decoding quantity to the entire quantity of the compressed code decreases.

Claim 124 (Original): The computer-readable recording medium as claimed in claim 123, wherein a weighting factor m of a center of the low-pass filter is calculated based on m = 32*R, where R is the ratio of the decoding quantity to the entire quantity of the compressed code.

Claim 125 (Original): The computer-readable recording medium as claimed in claim 122, wherein said step (a) is prevented from performing the smoothing of tile boundary distortion when the ratio of the decoding quantity to the entire quantity of the compressed code exceeds a predetermined threshold.

Claim 126 (Original): The computer-readable recording medium as claimed in claim 122, wherein the method further comprises the step of (b) specifying a tile boundary so that

said step (a) performs the smoothing of tile boundary distortion only on a peripheral pixel of the specified tile boundary.

Claim 127 (Original): The computer-readable recording medium as claimed in claim 126, wherein the tile boundary specified by said step (b) exists within a region of interest (ROI).

Claim 128 (Original): The computer-readable recording medium as claimed in claim 122, wherein said step (a) performs the smoothing of tile boundary distortion on the image after the decoding by applying the low-pass filter to peripheral pixels of a tile boundary in the image.

Claim 129 (Original): The computer-readable recording medium as claimed in claim 122, wherein the image is a moving image comprising a plurality of frames successively decodable by the method, and said step (a) performs the smoothing of tile boundary distortion on each of the frames after the decoding,

the method further comprising the step of (b) making selectable one of a first mode for giving priority to image quality and a second mode for giving priority to processing speed in the smoothing of tile boundary distortion by said step (a) so that a processing mode is switched between the first mode and the second mode based on the selection by said step (b) in the smoothing of tile boundary distortion on the frames after the decoding by said step (a).

Claim 130 (Original): The computer-readable recording medium as claimed in claim 129, wherein:

said step (b) makes one of the first and second modes selectable for each of the frames based on a type of the frame; and

the processing mode is switched to the first mode for a start frame and a final frame of the moving image, and to the second mode for the other frames of the moving image.

Claim 131 (Original): The computer-readable recording medium as claimed in claim 130, wherein the processing mode is also switched to the second mode for a suspended frame of the moving image at suspension of reproduction thereof.

Claim 132 (Original): The computer-readable recording medium as claimed in claim 129, wherein:

said step (b) makes one of the first and second modes selectable for each of the frames based on code quantity of the frame by which code quantity the frame is to be decoded; and

the processing mode is switched to the first mode if the code quantity of the frame is less than or equal to a predetermined threshold, and to the second mode if the code quantity of the frame exceeds the predetermined threshold.

Claim 133 (Original): The computer-readable recording medium as claimed in claim 129, wherein:

said step (b) makes one of the first and second modes selectable based on a frame rate in the smoothing of tile boundary distortion by said step (a); and

the processing mode is switched to the first mode if the frame rate is lower than or equal to a predetermined threshold, and to the second mode if the frame rate exceeds the predetermined threshold.

Claim 134 (Original): The computer-readable recording medium as claimed in claim 129, wherein said step (a) applies the low-pass filter to peripheral pixels of a tile boundary in each of the frames after the decoding.

Claim 135 (Original): The computer-readable recording medium as claimed in claim 134, wherein the low-pass filter applied by said step (a) is uniform for the peripheral pixels in the second mode, and is adaptively controlled in the degree of smoothing according to the peripheral pixels in the first mode.

Claim 136 (Original): The computer-readable recording medium as claimed in claim 135, wherein said step (a) adaptively controls the low-pass filter in the degree of smoothing according to a pixel-boundary distance and an edge amount of each of the peripheral pixels.

Claim 137 (Original): The computer-readable recording medium as claimed in claim 129, wherein the method further comprises the step of (c) specifying a tile boundary so that said step (b) performs the smoothing of tile boundary distortion only on a peripheral pixel of the specified tile boundary.

Claim 138 (Original): The computer-readable recording medium as claimed in claim 137, wherein the tile boundary specified by said step (c) exists within an ROI.

Claim 139 (Original): The computer-readable recording medium as claimed in claim 122, wherein:

said step (a) applies the low-pass filter to peripheral pixels of a tile boundary; and

weighting factors of the low-pass filter are asymmetric with respect a direction of the tile boundary.

Claim 140 (Original): The computer-readable recording medium as claimed in claim 139, wherein a degree of asymmetry of the weighting factors of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 141 (Original): The computer-readable recording medium as claimed in claim 139, wherein the weighting factors of the low-pass filter are asymmetric in a case where taps of the low-pass filter cross the tile boundary.

Claim 142 (Original): The computer-readable recording medium as claimed in claim 139, wherein the weighting factors of the low-pass filter are asymmetric in a case where mean pixel value error generated in one of the peripheral pixels which one is a target of the low-pass filter is greater than mean pixel value errors of two pixels adjacent to the one of the peripheral pixels.

Claim 143 (Original): The computer-readable recording medium as claimed in claim 139, wherein a degree of asymmetry of the weighting factors of the low-pass filter differs among components of the image.

Claim 144 (Original): The computer-readable recording medium as claimed in claim 139, wherein a degree of asymmetry of the weighting factors of the low-pass filter differs according to a compression rate of the compressed image.

Claim 145 (Original): The computer-readable recording medium as claimed in claim 139, wherein a degree of asymmetry of the weighting factors of the low-pass filter depends on a type of a wavelet filter employed in the compression and decompression of the image.

Claim 146 (Original): The computer-readable recording medium as claimed in claim 139, wherein a frequency characteristic of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 147 (Original): The computer-readable recording medium as claimed in claim 146, wherein the frequency characteristic of the low-pass filter further depends on an edge degree of a periphery of the tile boundary.

Claim 148 (Original): The computer-readable recording medium as claimed in claim 139, wherein a frequency characteristic of the low-pass filter differs among components of the image.

Claim 149 (Original): The computer-readable recording medium as claimed in claim 139, wherein a frequency characteristic of the low-pass filter depends on a compression rate of the compressed image.

Claim 150 (Original): The computer-readable recording medium as claimed in claim 139, wherein a frequency characteristic of the low-pass filter differs according to a type of a wavelet filter employed in the compression and decompression of the image.

Claim 151 (Original): The computer-readable recording medium as claimed in claim 139, wherein a frequency characteristic of the low-pass filter depends on an edge degree of a periphery of the tile boundary.

Claim 152 (Original): The computer-readable recording medium as claimed in claim 139, wherein said step (a) applies the low-pass filter to the peripheral pixels of the tile boundary after inverse color conversion is performed on the decoded image.

Claim 153 (Original): The computer-readable recording medium as claimed in claim 139, wherein said step (a) applies the low-pass filter to the peripheral pixels of the tile boundary before inverse color conversion is performed on the decoded image.

Claim 154 (Original): The computer-readable recording medium as claimed in claim 122, wherein:

said step (a) applies the low-pass filter to peripheral pixels of a tile boundary; and

sizes of mean pixel value errors of the peripheral pixels are reflected in weighting factors of the low-pass filter.

Claim 155 (Original): The computer-readable recording medium as claimed in claim 154, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 156 (Original): The computer-readable recording medium as claimed in claim 154, wherein the sizes of the mean pixel value errors are reflected in the weighting factors of the low-pass filter in a case where taps of the low-pass filter cross the tile boundary.

Claim 157 (Original): The computer-readable recording medium as claimed in claim 154, wherein the sizes of the mean pixel value errors are reflected in the weighting factors of the low-pass filter in a case where the mean pixel value error generated in one of the peripheral pixels which one is a target of the low-pass filter is greater than mean pixel value errors of two pixels adjacent to the one of the peripheral pixels.

Claim 158 (Original): The computer-readable recording medium as claimed in claim 154, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter differs among components of the image.

Claim 159 (Original): The computer-readable recording medium as claimed in claim 154, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter differs according to a compression rate of the compressed image.

Claim 160 (Original): The computer-readable recording medium as claimed in claim 154, wherein a degree of reflection of the sizes of the mean pixel value errors in the weighting factors of the low-pass filter depends on a type of a wavelet filter employed in the compression and decompression of the image.

Claim 161 (Original): The computer-readable recording medium as claimed in claim 154, wherein a frequency characteristic of the low-pass filter depends on a pixel-boundary distance of one of the peripheral pixels which one is a target of the low-pass filter.

Claim 162 (Original): The computer-readable recording medium as claimed in claim 161, wherein the frequency characteristic of the low-pass filter further depends on an edge degree of a periphery of the tile boundary.

Claim 163 (Original): The computer-readable recording medium as claimed in claim 154, wherein a frequency characteristic of the low-pass filter differs among components of the image.

Claim 164 (Original): The computer-readable recording medium as claimed in claim 154, wherein a frequency characteristic of the low-pass filter depends on a compression rate of the compressed image.

Claim 165 (Original): The computer-readable recording medium as claimed in claim 154, wherein a frequency characteristic of the low-pass filter differs according to a type of a wavelet filter employed in the compression and decompression of the image.

Claim 166 (Original): The computer-readable recording medium as claimed in claim 154, wherein a frequency characteristic of the low-pass filter depends on an edge degree of a periphery of the tile boundary.

Claim 167 (Original): The computer-readable recording medium as claimed in claim 154, wherein said step (a) applies the low-pass filter to the peripheral pixels of the tile boundary after inverse color conversion is performed on the decoded image.

Claim 168 (Original): The computer-readable recording medium as claimed in claim 154, wherein said step (a) applies the low-pass filter to the peripheral pixels of the tile boundary before inverse color conversion is performed on the decoded image.

Claims 169-172 (Canceled).